

Sequence Listing

<110> Baker, Kevin
Botstein, David
Eaton, Dan
Ferrara, Napoleone
Filvaroff, Ellen
Gerritsen, Mary
Goddard, Audrey
Godowski, Paul
Grimaldi, Christopher
Gurney, Austin
Hillan, Kenneth
Kljasin, Ivar
Napier, Mary
Roy, Margaret
Tumas, Daniel
Wood, William

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35 40 45
Asp Asp Asp Asp Asp Glu Asp Asn Ser Leu Phe Pro Thr Arg Glu
50 55 60
Pro Arg Ser His Phe Phe Pro Phe Asp Leu Phe Pro Met Cys Pro
65 70 75
Phe Gly Cys Gln Cys Tyr Ser Arg Val Val His Cys Ser Asp Leu
80 85 90
Gly Leu Thr Ser Val Pro Thr Asn Ile Pro Phe Asp Thr Arg Met
95 100 105
Leu Asp Leu Gln Asn Asn Lys Ile Lys Glu Ile Lys Glu Asn Asp
110 115 120
Phe Lys Gly Leu Thr Ser Leu Tyr Gly Leu Ile Leu Asn Asn Asn
125 130 135
Lys Leu Thr Lys Ile His Pro Lys Ala Phe Leu Thr Thr Lys Lys
140 145 150
Leu Arg Arg Leu Tyr Leu Ser His Asn Gln Leu Ser Glu Ile Pro
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170 175 180
Lys Val Lys Lys Ile Gln Lys Asp Thr Phe Lys Gly Met Asn Ala
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260	265	270
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275	280	285
Asn Ile Pro Arg	Val Arg Glu Ile His	Leu Glu Asn Asn Lys Leu
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Lys Lys Ile Pro	Ser Gly Leu Pro Glu	Leu Lys Tyr Leu Gln Ile
305	310	315
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320	325	330
Phe Cys Pro Thr	Val Pro Lys Met Lys	Lys Ser Leu Tyr Ser Ala
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 gectgaatgc agccacctgc agggacctcg ttaatggcta tgagtgtgtg 1700
 tgectggcag aatacaaagg aacacactgt gaattgtaca aggatccctg 1750
 cgctaacgtc agctgtctga acggagccac ctgtgacagc gacggcctga 1800
 atggcacgtg catctgtgca cccgggttta caggtgaaga gtgcgacatt 1850
 gacataaatg aatgtgacag taaccctgc caccatgggtg ggagctgcct 1900
 ggaccagccc aatgggtata actgccactg cccgcatggt tgggtgggag 1950
 caaactgtga gatccacctc caatggaagt ccgggcacat ggcggagagc 2000
 ctcaccaaca tgccacggca ctccctctac atcatcattg gagccctctg 2050
 cgtggccttc atccttatgc tgatcatcct gatcgtgggg atttgccgca 2100
 tcagccgcat tgaataccag ggttcttcca ggccagccta tgaggagttc 2150
 tacaactgcc gcagcatcga cagcgagttc agcaatgcc ttgcatccat 2200
 ccggcatgcc aggtttggaa agaaatcccg gcctgcaatg tatgatgtga 2250
 gccccatgc ctatgaagat tacagtctctg atgacaaacc cttggtcaca 2300
 ctgattaaaa ctaaagattt gtaatctttt tttggattat ttttcaaaaa 2350
 gatgagatac tacactcatt taaatatttt taagaaaata aaaagcttaa 2400
 gaaattttaa atgctagctg ctcaagagtt ttcagtagaa tatttaagaa 2450
 ctaattttct gcagctttta gtttggaaaa aatattttta aaacaaaatt 2500

[illegible]

<211> 737

<212> PRT

<213> Homo Sapien

<400> 15

Ala Leu Ala Leu Leu Leu Leu Leu Gly Ala Gly Pro Arg Gly
20 25 30

Ser Ser Leu Ala Asn Pro Val Pro Ala Ala Pro Leu Ser Ala Pro
35 40 45

Gly Pro Cys Ala Ala Gln Pro Cys Arg Asn Gly Gly Val Cys Thr
50 55 60

Ser Arg Pro Glu Pro Asp Pro Gln His Pro Ala Pro Ala Gly Glu
65 70 75

Pro Gly Tyr Ser Cys Thr Cys Pro Ala Gly Ile Ser Gly Ala Asn
80 85 90

Cys Gln Leu Val Ala Asp Pro Cys Ala Ser Asn Pro Cys His His
95 100 105

Gly Asn Cys Ser Ser Ser Ser Ser Ser Ser Ser Asp Gly Tyr Leu

				110					115					120
Cys	Ile	Cys	Asn	Glu 125	Gly	Tyr	Glu	Gly	Pro 130	Asn	Cys	Glu	Gln	Ala 135
Leu	Pro	Ser	Leu	Pro 140	Ala	Thr	Gly	Trp	Thr 145	Glu	Ser	Met	Ala	Pro 150
Arg	Gln	Leu	Gln	Pro 155	Val	Pro	Ala	Thr	Gln 160	Glu	Pro	Asp	Lys	Ile 165
Leu	Pro	Arg	Ser	Gln 170	Ala	Thr	Val	Thr	Leu 175	Pro	Thr	Trp	Gln	Pro 180
Lys	Thr	Gly	Gln	Lys 185	Val	Val	Glu	Met	Lys 190	Trp	Asp	Gln	Val	Glu 195
Val	Ile	Pro	Asp	Ile 200	Ala	Cys	Gly	Asn	Ala 205	Ser	Ser	Asn	Ser	Ser 210
Ala	Gly	Gly	Arg	Leu 215	Val	Ser	Phe	Glu	Val 220	Pro	Gln	Asn	Thr	Ser 225
Val	Lys	Ile	Arg	Gln 230	Asp	Ala	Thr	Ala	Ser 235	Leu	Ile	Leu	Leu	Trp 240
Lys	Val	Thr	Ala	Thr 245	Gly	Phe	Gln	Gln	Cys 250	Ser	Leu	Ile	Asp	Gly 255
Arg	Ser	Val	Thr	Pro 260	Leu	Gln	Ala	Ser	Gly 265	Gly	Leu	Val	Leu	Leu 270
Glu	Glu	Met	Leu	Ala 275	Leu	Gly	Asn	Asn	His 280	Phe	Ile	Gly	Phe	Val 285
Asn	Asp	Ser	Val	Thr 290	Lys	Ser	Ile	Val	Ala 295	Leu	Arg	Leu	Thr	Leu 300
Val	Val	Lys	Val	Ser 305	Thr	Cys	Val	Pro	Gly 310	Glu	Ser	His	Ala	Asn 315
Asp	Leu	Glu	Cys	Ser 320	Gly	Lys	Gly	Lys	Cys 325	Thr	Thr	Lys	Pro	Ser 330
Glu	Ala	Thr	Phe	Ser 335	Cys	Thr	Cys	Glu	Glu 340	Gln	Tyr	Val	Gly	Thr 345
Phe	Cys	Glu	Glu	Tyr 350	Asp	Ala	Cys	Gln	Arg 355	Lys	Pro	Cys	Gln	Asn 360
Asn	Ala	Ser	Cys	Ile 365	Asp	Ala	Asn	Glu	Lys 370	Gln	Asp	Gly	Ser	Asn 375
Phe	Thr	Cys	Val	Cys 380	Leu	Pro	Gly	Tyr	Thr 385	Gly	Glu	Leu	Cys	Gln 390
Ser	Lys	Ile	Asp	Tyr 395	Cys	Ile	Leu	Asp	Pro 400	Cys	Arg	Asn	Gly	Ala 405

Thr Cys Ile Ser	Ser Leu Ser Gly Phe	Thr Cys Gln Cys Pro Glu	410	415	420
Gly Tyr Phe Gly	Ser Ala Cys Glu Glu	Lys Val Asp Pro Cys Ala	425	430	435
Ser Ser Pro Cys	Gln Asn Asn Gly Thr	Cys Tyr Val Asp Gly Val	440	445	450
His Phe Thr Cys	Asn Cys Ser Pro Gly	Phe Thr Gly Pro Thr Cys	455	460	465
Ala Gln Leu Ile	Asp Phe Cys Ala Leu	Ser Pro Cys Ala His Gly	470	475	480
Thr Cys Arg Ser	Val Gly Thr Ser Tyr	Lys Cys Leu Cys Asp Pro	485	490	495
Gly Tyr His Gly	Leu Tyr Cys Glu Glu	Glu Tyr Asn Glu Cys Leu	500	505	510
Ser Ala Pro Cys	Leu Asn Ala Ala Thr	Cys Arg Asp Leu Val Asn	515	520	525
Gly Tyr Glu Cys	Val Cys Leu Ala Glu	Tyr Lys Gly Thr His Cys	530	535	540
Glu Leu Tyr Lys	Asp Pro Cys Ala Asn	Val Ser Cys Leu Asn Gly	545	550	555
Ala Thr Cys Asp	Ser Asp Gly Leu Asn	Gly Thr Cys Ile Cys Ala	560	565	570
Pro Gly Phe Thr	Gly Glu Glu Cys Asp	Ile Asp Ile Asn Glu Cys	575	580	585
Asp Ser Asn Pro	Cys His His Gly Gly	Ser Cys Leu Asp Gln Pro	590	595	600
Asn Gly Tyr Asn	Cys His Cys Pro His	Gly Trp Val Gly Ala Asn	605	610	615
Cys Glu Ile His	Leu Gln Trp Lys Ser	Gly His Met Ala Glu Ser	620	625	630
Leu Thr Asn Met	Pro Arg His Ser Leu	Tyr Ile Ile Ile Gly Ala	635	640	645
Leu Cys Val Ala	Phe Ile Leu Met Leu	Ile Ile Leu Ile Val Gly	650	655	660
Ile Cys Arg Ile	Ser Arg Ile Glu Tyr	Gln Gly Ser Ser Arg Pro	665	670	675
Ala Tyr Glu Glu	Phe Tyr Asn Cys Arg	Ser Ile Asp Ser Glu Phe	680	685	690
Ser Asn Ala Ile	Ala Ser Ile Arg His	Ala Arg Phe Gly Lys Lys			

695

700

705

Ser Arg Pro Ala Met Tyr Asp Val Ser Pro Ile Ala Tyr Glu Asp
710 715 720

Tyr Ser Pro Asp Asp Lys Pro Leu Val Thr Leu Ile Lys Thr Lys
725 730 735

Asp Leu

<210> 16

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 16

tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

<210> 17

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 17

caggaaacag ctatgaccac ctgcacacct gcaaattccat t 41

<210> 18

<211> 508

<212> DNA

<213> Homo Sapien

<400> 18

ctctggaagg tcacggccac aggattccaa cagtgtctccc tcatagatgg 50

acgaaagtgt gacccccctt tcaggctttc aggggggactg gtcctcctgg 100

aggagatgct cgccttgggg aataatcact ttattggttt tgtgaatgat 150

tctgtgacta agtctattgt ggctttgctg ttaactctgg tggatgaagg 200

cagcacctgt gtgccggggg agagtcacgc aaatgacttg gagggttcag 250

gaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttctgtacc 300

tgtgaggagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350

gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400

aagatgggag caatttcacc tgtgtttgcc ttctgggtta tactggagag 450

ctttgccaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500

taggggag 508

<210> 19
<211> 508
<212> DNA
<213> Homo Sapien

<400> 19
ctctggaagg tcacggccac aggattccaa cagtgtccc tcatagatgg 50
acgaaagtgt gacccccctt tcaggctttc agggggactg gtcctcctgg 100
aggagatgct cgccttgggg aataatcact ttattggttt tgtgaatgat 150
tctgtgacta agtctattgt ggctttgcgc ttaactctgg tggagaaggt 200
cagcacctgt gtgccggggg agagtcacgc aaatgacttg gagggttcag 250
gaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttcctgtacc 300
tgtgaggagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350
gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400
aagatgggag caatttcacc tgtgtttgcc ttcttggtta tactggagag 450
ctttgccaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500
taggggag 508

<210> 20
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 20
ctctggaagg tcacggccac agg 23

<210> 21
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 21
ctcagttcgg ttggcaaagc tctc 24

<210> 22
<211> 69
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 22

cagtgtctccc tcatagatgg acgaaagtgt gacccccctt tcaggcgaga 50

gctttgccaa ccgaactga 69

<210> 23

<211> 1520

<212> DNA

<213> Homo Sapien

<400> 23

gctgagtctg ctgctcctgc tgctgctgct ccagcctgta acctgtgcct 50

acaccacgcc agggcccccc agagccctca ccacgctggg cgcccccaga 100

gcccacacca tgccggggcac ctacgctccc tcgaccacac tcagtagtcc 150

cagcaccacag ggcttgcaag agcaggcacg ggccctgatg cgggacttcc 200

cgctcgtgga cggccacaac gacctgcccc tggtcctaag gcaggtttac 250

cagaaagggc tacaggatgt taacctgcgc aatttcagct acggccagac 300

cagcctggac aggcttagag atggcctcgt gggcgcccag ttctggtcag 350

cctatgtgcc atgccagacc caggaccggg atgcctcgcg cctcaccctg 400

gagcagattg acctcatacg ccgcatgtgt gcctcctatt ctgagctgga 450

gcttgtgacc tcggctaaag ctctgaacga cactcagaaa ttggcctgcc 500

tcatcggtgt agaggggtggc cactcgtctg acaatagcct ctccatctta 550

cgtaccttct acatgctggg agtgcgctac ctgacgctca cccacacctg 600

caacacaccc tgggcagaga gctccgctaa gggcgtccac tccttctaca 650

acaacatcag cgggctgact gactttggtg agaagggtggg ggcagaaatg 700

aaccgcctgg gcatgatggg agacttatcc catgtctcag atgctgtggc 750

acggcggggc ctggaagtgt cacaggcacc tgtgatcttc tccactcgg 800

ctgcccgggg tgtgtgcaac agtgctcgga atgttctga tgacatcctg 850

cagcttctga agaagaacgg tggcgtcgtg atgggtgtctt tgtccatggg 900

agtaatacag tgcaaccat cagccaatgt gtccactgtg gcagatcact 950

tcgaccacat caaggctgtc attggatcca agttcatcgg gattgggtgga 1000

gattatgatg gggccggcaa attccctcag gggctggaag acgtgtccac 1050

ataccgggtc ctgatagagg agttgctgag tcgtggctgg agtgaggaag 1100

agcttcaggg tgtccttcgt ggaaacctgc tcggggtctt cagacaagtg 1150

gaaaagggtac aggaagaaaa caaatggcaa agccccttgg aggacaagtt 1200
 cccggatgag cagctgagca gttcctgcca ctccgacctc tcacgtctgc 1250
 gtcagagaca gagtctgact tcaggccagg aactcactga gattcccata 1300
 cactggacag ccaagttacc agccaagtgg tcagtctcag agtcctcccc 1350
 ccacatggcc ccagtccttg cagttgtggc caccttccca gtccttattc 1400
 tgttggtctg atgaccagct tagtcctgcc agatgtcact gtagcaagcc 1450
 acagacaccc cacaagttc cctgtgtgtg caggcacaaa tatttctctga 1500
 aataaatggt ttggacatag 1520

<210> 24

<211> 433

<212> PRT

<213> Homo Sapien

<400> 24

Met	Pro	Gly	Thr	Tyr	Ala	Pro	Ser	Thr	Thr	Leu	Ser	Ser	Pro	Ser	
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Thr	Gln	Gly	Leu	Gln	Glu	Gln	Ala	Arg	Ala	Leu	Met	Arg	Asp	Phe	
				20					25					30	
Pro	Leu	Val	Asp	Gly	His	Asn	Asp	Leu	Pro	Leu	Val	Leu	Arg	Gln	
				35					40					45	
Val	Tyr	Gln	Lys	Gly	Leu	Gln	Asp	Val	Asn	Leu	Arg	Asn	Phe	Ser	
				50					55					60	
Tyr	Gly	Gln	Thr	Ser	Leu	Asp	Arg	Leu	Arg	Asp	Gly	Leu	Val	Gly	
				65					70					75	
Ala	Gln	Phe	Trp	Ser	Ala	Tyr	Val	Pro	Cys	Gln	Thr	Gln	Asp	Arg	
				80					85					90	
Asp	Ala	Leu	Arg	Leu	Thr	Leu	Glu	Gln	Ile	Asp	Leu	Ile	Arg	Arg	
				95					100					105	
Met	Cys	Ala	Ser	Tyr	Ser	Glu	Leu	Glu	Leu	Val	Thr	Ser	Ala	Lys	
				110					115					120	
Ala	Leu	Asn	Asp	Thr	Gln	Lys	Leu	Ala	Cys	Leu	Ile	Gly	Val	Glu	
				125					130					135	
Gly	Gly	His	Ser	Leu	Asp	Asn	Ser	Leu	Ser	Ile	Leu	Arg	Thr	Phe	
				140					145					150	
Tyr	Met	Leu	Gly	Val	Arg	Tyr	Leu	Thr	Leu	Thr	His	Thr	Cys	Asn	
				155					160					165	
Thr	Pro	Trp	Ala	Glu	Ser	Ser	Ala	Lys	Gly	Val	His	Ser	Phe	Tyr	
				170					175					180	

Asn	Asn	Ile	Ser	Gly	Leu	Thr	Asp	Phe	Gly	Glu	Lys	Val	Val	Ala	185	190	195
Glu	Met	Asn	Arg	Leu	Gly	Met	Met	Val	Asp	Leu	Ser	His	Val	Ser	200	205	210
Asp	Ala	Val	Ala	Arg	Arg	Ala	Leu	Glu	Val	Ser	Gln	Ala	Pro	Val	215	220	225
Ile	Phe	Ser	His	Ser	Ala	Ala	Arg	Gly	Val	Cys	Asn	Ser	Ala	Arg	230	235	240
Asn	Val	Pro	Asp	Asp	Ile	Leu	Gln	Leu	Leu	Lys	Lys	Asn	Gly	Gly	245	250	255
Val	Val	Met	Val	Ser	Leu	Ser	Met	Gly	Val	Ile	Gln	Cys	Asn	Pro	260	265	270
Ser	Ala	Asn	Val	Ser	Thr	Val	Ala	Asp	His	Phe	Asp	His	Ile	Lys	275	280	285
Ala	Val	Ile	Gly	Ser	Lys	Phe	Ile	Gly	Ile	Gly	Gly	Asp	Tyr	Asp	290	295	300
Gly	Ala	Gly	Lys	Phe	Pro	Gln	Gly	Leu	Glu	Asp	Val	Ser	Thr	Tyr	305	310	315
Pro	Val	Leu	Ile	Glu	Glu	Leu	Leu	Ser	Arg	Gly	Trp	Ser	Glu	Glu	320	325	330
Glu	Leu	Gln	Gly	Val	Leu	Arg	Gly	Asn	Leu	Leu	Arg	Val	Phe	Arg	335	340	345
Gln	Val	Glu	Lys	Val	Gln	Glu	Glu	Asn	Lys	Trp	Gln	Ser	Pro	Leu	350	355	360
Glu	Asp	Lys	Phe	Pro	Asp	Glu	Gln	Leu	Ser	Ser	Ser	Cys	His	Ser	365	370	375
Asp	Leu	Ser	Arg	Leu	Arg	Gln	Arg	Gln	Ser	Leu	Thr	Ser	Gly	Gln	380	385	390
Glu	Leu	Thr	Glu	Ile	Pro	Ile	His	Trp	Thr	Ala	Lys	Leu	Pro	Ala	395	400	405
Lys	Trp	Ser	Val	Ser	Glu	Ser	Ser	Pro	His	Met	Ala	Pro	Val	Leu	410	415	420
Ala	Val	Val	Ala	Thr	Phe	Pro	Val	Leu	Ile	Leu	Trp	Leu			425	430	

<210> 25

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 25

agttctggtc agcctatgtg cc 22

<210> 26

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 26

cgtgatggtg tctttgtcca tggg 24

<210> 27

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 27

ctccaccaat cccgatgaac ttgg 24

<210> 28

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 28

gagcagattg acctcatagc cgcgatgtgt gcctcctatt ctgagctgga 50

<210> 29

<211> 1416

<212> DNA

<213> Homo Sapien

<400> 29

aaaacctata aatattccgg attattcata ccgtcccacc atcgggcgcg 50

gatccgcggc cggaattct aaaccaacat gccgggcacc tacgctccct 100

cgaccacact cagtagtccc agcaccaggg gcctgcaaga gcaggcacgg 150

gccctgatgc gggacttccc gctcgtggac ggccacaacg acctgcccct 200

ggtcctaagg cagggttacc agaaagggct acaggatgtt aacctgcgca 250

atttcagcta cggccagacc agcctggaca ggcttagaga tggcctcgtg 300

ggcgcccagt tctggtcagc ctatgtgcca tgccagaccc aggaccggga 350

tgccctgcgc ctcaccctgg agcagattga cctcatagc cgcgatgtgtg 400

cctcctattc tgagctggag cttgtgacct cggctaaagc tctgaacgac 450
 actcagaaat tggcctgcct catcggtgta gaggggtggcc actcgctgga 500
 caatagcctc tccatcttac gtaccttcta catgctggga gtgcgctacc 550
 tgacgctcac ccacacctgc aacacaccct gggcagagag ctccgctaag 600
 ggcgtccact ccttctacaa caacatcagc gggctgactg acttttgtga 650
 gaaggtgggtg gcagaaatga accgcctggg catgatggta gacttatccc 700
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 gtgatcttct cccactcggc tgcccgggggt gtgtgcaaca gtgctcggaa 800
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 tgggtgtcttt gtccatggga gtaatacagt gcaacccatc agccaatgtg 900
 tccactgtgg cagatcactt cgaccacatc aaggctgtca ttggatccaa 950
 gttcatcggg attggtggag attatgatgg ggccggcaaa ttccctcagg 1000
 ggctggaaga cgtgtccaca tacccggtcc tgatagagga gttgctgagt 1050
 cgtggctgga gtgaggaaga gcttcagggt gtccttcgtg gaaacctgct 1100
 gcgggtcttc agacaagtgg aaaaggtaca ggaagaaaac aaatggcaaa 1150
 gccccttgga ggacaagttc ccggatgagc agctgagcag ttcttgccac 1200
 tccgaacctct cacgtctgcg tcagagacag agtctgactt caggccagga 1250
 actcactgag attcccatc actggacagc caagttacca gccaaagtgg 1300
 cagtctcaga gtcttcccc caccctgaca aaactcacac atgcccaccg 1350
 tgcccagcac ctgaactcct ggggggaccg tcagtcttcc tcttcccccc 1400
 aaaacccaag gacacc 1416

<210> 30
 <211> 446
 <212> PRT
 <213> Homo Sapien

<400> 30
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 Thr Gln Gly Leu Gln Glu Gln Ala Arg Ala Leu Met Arg Asp Phe
 20 25 30
 Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
 35 40 45
 Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser

				50					55					60	
Tyr	Gly	Gln	Thr	Ser 65	Leu	Asp	Arg	Leu	Arg 70	Asp	Gly	Leu	Val	Gly 75	
Ala	Gln	Phe	Trp	Ser 80	Ala	Tyr	Val	Pro	Cys 85	Gln	Thr	Gln	Asp	Arg 90	
Asp	Ala	Leu	Arg	Leu 95	Thr	Leu	Glu	Gln	Ile 100	Asp	Leu	Ile	Arg	Arg 105	
Met	Cys	Ala	Ser	Tyr 110	Ser	Glu	Leu	Glu	Leu 115	Val	Thr	Ser	Ala	Lys 120	
Ala	Leu	Asn	Asp	Thr 125	Gln	Lys	Leu	Ala	Cys 130	Leu	Ile	Gly	Val	Glu 135	
Gly	Gly	His	Ser	Leu 140	Asp	Asn	Ser	Leu	Ser 145	Ile	Leu	Arg	Thr	Phe 150	
Tyr	Met	Leu	Gly	Val 155	Arg	Tyr	Leu	Thr	Leu 160	Thr	His	Thr	Cys	Asn 165	
Thr	Pro	Trp	Ala	Glu 170	Ser	Ser	Ala	Lys	Gly 175	Val	His	Ser	Phe	Tyr 180	
Asn	Asn	Ile	Ser	Gly 185	Leu	Thr	Asp	Phe	Gly 190	Glu	Lys	Val	Val	Ala 195	
Glu	Met	Asn	Arg	Leu 200	Gly	Met	Met	Val	Asp 205	Leu	Ser	His	Val	Ser 210	
Asp	Ala	Val	Ala	Arg 215	Arg	Ala	Leu	Glu	Val 220	Ser	Gln	Ala	Pro	Val 225	
Ile	Phe	Ser	His	Ser 230	Ala	Ala	Arg	Gly	Val 235	Cys	Asn	Ser	Ala	Arg 240	
Asn	Val	Pro	Asp	Asp 245	Ile	Leu	Gln	Leu	Leu 250	Lys	Lys	Asn	Gly	Gly 255	
Val	Val	Met	Val	Ser 260	Leu	Ser	Met	Gly	Val 265	Ile	Gln	Cys	Asn	Pro 270	
Ser	Ala	Asn	Val	Ser 275	Thr	Val	Ala	Asp	His 280	Phe	Asp	His	Ile	Lys 285	
Ala	Val	Ile	Gly	Ser 290	Lys	Phe	Ile	Gly	Ile 295	Gly	Gly	Asp	Tyr	Asp 300	
Gly	Ala	Gly	Lys	Phe 305	Pro	Gln	Gly	Leu	Glu 310	Asp	Val	Ser	Thr	Tyr 315	
Pro	Val	Leu	Ile	Glu 320	Glu	Leu	Leu	Ser	Arg 325	Gly	Trp	Ser	Glu	Glu 330	
Glu	Leu	Gln	Gly	Val 335	Leu	Arg	Gly	Asn	Leu 340	Leu	Arg	Val	Phe	Arg 345	

Gln Val Glu Lys	Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu	
350	355	360
Glu Asp Lys Phe	Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser	
365	370	375
Asp Leu Ser Arg	Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln	
380	385	390
Glu Leu Thr Glu	Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala	
395	400	405
Lys Trp Ser Val	Ser Glu Ser Ser Pro His Pro Asp Lys Thr His	
410	415	420
Thr Cys Pro Pro	Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser	
425	430	435
Val Phe Leu Phe	Pro Pro Lys Pro Lys Asp Thr	
440	445	

<210> 31
 <211> 1790
 <212> DNA
 <213> Homo Sapien

<400> 31
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 gcgtcccgcg cctgcgcca ccgcgcgcca gccgcagccc gccgcgcgcc 100
 ccgggcagcg ccggcccat gccgcgcggc cgccggggcc ccgcgcgcca 150
 atccgcgcgg cgccgcgcgc cgttgctgcc cctgctgctg ctgctctgcg 200
 tcctcggggc gccgcgagcc ggatcaggag ccacacagc tgtgatcagt 250
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 agtgcacgga gaccaccag gagccaccgc cgagggcctc tactggacct 350
 tcaacgggcg ccgctgccc cctgagctct cccgtgtact caacgcctcc 400
 accttggtc tggccctggc caacctcaat gggccaggc agcggtcggg 450
 ggacaacctc gtgtgccacg ccctgacgg cagcctctg gctggctcct 500
 gcctctatgt tggcctgccc ccagagaaac ccgtcaacat cagctgctgg 550
 tccaagaaca tgaaggactt gacctgccgc tggacgccag gggcccacgg 600
 ggagacctc ctccacacca actactcct caagtacaag cttaggtgg 650
 atggccagga caacacatgt gaggagtacc acacagtggg gcccactcc 700
 tgccacatcc ccaaggacct ggctctcttt acgccctatg agatctgggt 750
 ggaggccacc aaccgctgg gctctgccc ctccgatgta ctcacgctgg 800

atatacctgga tgtggtgacc acggaccccc cgcccgacgt gcacgtgagc 850
 cgcgctgggg gacctggagga ccagctgagc gtgcgctggg tgtcgccacc 900
 cgccctcaag gatttctctt ttcaagccaa ataccagatc cgctaccgag 950
 tggaggacag tgtggactgg aaggtggtgg acgatgtgag caaccagacc 1000
 tcttgccgcc tggccggcct gaaacccggc accgtgtact tcgtgcaagt 1050
 gcgctgcaac ccccttgga tctatggctc caagaaagcc gggatctgga 1100
 gtgagtggag ccaccccaca gccgcctcca ctccccgag tgagcgcccg 1150
 ggcccgggcg gcggggcggtg cgaaccgagg ggcgagagc cgagctcggg 1200
 gccggtgagg cgcgagctca agcagttcct gggctggctc aagaagcacg 1250
 cgtactgctc caacctcagc ttccgctct acgaccagtg gcgagcctgg 1300
 atgcagaagt cgcacaagac ccgcaaccag gacgagggga tctgcccctc 1350
 gggcagacgg ggcacggcga gaggtcctgc cagataagct gtaggggctc 1400
 aggccaccct ccctgccacg tggagacgca gaggccgaac ccaaactggg 1450
 gccacctctg taccctcact tcagggcacc tgagccaccc tcagcaggag 1500
 ctgggggtggc ccctgagctc caacggccat aacagctctg actcccacgt 1550
 gaggccacct ttgggtgcac ccagtggggt gtgtgtgtgt gtgtgagggt 1600
 tggttgagtt gcctagaacc cctgccaggg ctgggggtga gaaggggagt 1650
 cattactccc cattacctag gggccctcca aaagagtctt tttaaataaa 1700
 tgagctatatt aggtgctgtg attgtgaaaa aaaaaaaaaa aaaaaaaaaa 1750
 aaaaaaaaaa aaaaaaaaaa aaaaacaaaa aaaaaaaaaa 1790

<210> 32
 <211> 422
 <212> PRT
 <213> Homo Sapien

<400> 32
 Met Pro Ala Gly Arg Arg Gly Pro Ala Ala Gln Ser Ala Arg Arg
 1 5 10 15
 Pro Pro Pro Leu Leu Pro Leu Leu Leu Leu Cys Val Leu Gly
 20 25 30
 Ala Pro Arg Ala Gly Ser Gly Ala His Thr Ala Val Ile Ser Pro
 35 40 45
 Gln Asp Pro Thr Leu Leu Ile Gly Ser Ser Leu Leu Ala Thr Cys
 50 55 60

Ser Val His Gly Asp Pro Pro Gly Ala Thr Ala Glu Gly Leu Tyr	65	70	75
Trp Thr Leu Asn Gly Arg Arg Leu Pro Pro Glu Leu Ser Arg Val	80	85	90
Leu Asn Ala Ser Thr Leu Ala Leu Ala Leu Ala Asn Leu Asn Gly	95	100	105
Ser Arg Gln Arg Ser Gly Asp Asn Leu Val Cys His Ala Arg Asp	110	115	120
Gly Ser Ile Leu Ala Gly Ser Cys Leu Tyr Val Gly Leu Pro Pro	125	130	135
Glu Lys Pro Val Asn Ile Ser Cys Trp Ser Lys Asn Met Lys Asp	140	145	150
Leu Thr Cys Arg Trp Thr Pro Gly Ala His Gly Glu Thr Phe Leu	155	160	165
His Thr Asn Tyr Ser Leu Lys Tyr Lys Leu Arg Trp Tyr Gly Gln	170	175	180
Asp Asn Thr Cys Glu Glu Tyr His Thr Val Gly Pro His Ser Cys	185	190	195
His Ile Pro Lys Asp Leu Ala Leu Phe Thr Pro Tyr Glu Ile Trp	200	205	210
Val Glu Ala Thr Asn Arg Leu Gly Ser Ala Arg Ser Asp Val Leu	215	220	225
Thr Leu Asp Ile Leu Asp Val Val Thr Thr Asp Pro Pro Pro Asp	230	235	240
Val His Val Ser Arg Val Gly Gly Leu Glu Asp Gln Leu Ser Val	245	250	255
Arg Trp Val Ser Pro Pro Ala Leu Lys Asp Phe Leu Phe Gln Ala	260	265	270
Lys Tyr Gln Ile Arg Tyr Arg Val Glu Asp Ser Val Asp Trp Lys	275	280	285
Val Val Asp Asp Val Ser Asn Gln Thr Ser Cys Arg Leu Ala Gly	290	295	300
Leu Lys Pro Gly Thr Val Tyr Phe Val Gln Val Arg Cys Asn Pro	305	310	315
Phe Gly Ile Tyr Gly Ser Lys Lys Ala Gly Ile Trp Ser Glu Trp	320	325	330
Ser His Pro Thr Ala Ala Ser Thr Pro Arg Ser Glu Arg Pro Gly	335	340	345
Pro Gly Gly Gly Ala Cys Glu Pro Arg Gly Gly Glu Pro Ser Ser			

350	355	360
Gly Pro Val Arg	Arg Glu Leu Lys Gln Phe Leu Gly Trp Leu Lys	
365	370	375
Lys His Ala Tyr	Cys Ser Asn Leu Ser Phe Arg Leu Tyr Asp Gln	
380	385	390
Trp Arg Ala Trp	Met Gln Lys Ser His Lys Thr Arg Asn Gln Asp	
395	400	405
Glu Gly Ile Leu	Pro Ser Gly Arg Arg Gly Thr Ala Arg Gly Pro	
410	415	420
Ala Arg		

<210> 33
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 33
 cccgcccgcac gtgcacgtga gcc 23

<210> 34
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 34
 tgagccagcc caggaactgc ttg 23

<210> 35
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 35
 caagtgcgct gcaacccctt tggcatctat ggctccaaga aagccgggat 50

<210> 36
 <211> 1771
 <212> DNA
 <213> Homo Sapien

<400> 36
 cccacgcgctc cgctggtgtt agatcgagca accctctaaa agcagtttag 50

agtggtaaaa	aaaaaaaaaa	acacaccaaa	cgctcgagc	cacaaaagg	100
atgaaatttc	ttctggacat	cctcctgctt	ctcccgttac	tgatcgctcg	150
ctccctagag	tccttcgtga	agctttttat	tcctaagagg	agaaaatcag	200
tcaccggcga	aatcgtgctg	attacaggag	ctgggcatgg	aattgggaga	250
ctgactgcct	atgaatttgc	taaacttaaa	agcaagctgg	ttctctggga	300
tataaataag	catggactgg	aggaaacagc	tgccaaatgc	aagggactgg	350
gtgccaaagg	tcataccttt	gtggtagact	gcagcaaccg	agaagatatt	400
tacagctctg	caaagaagg	gaaggcagaa	attggagatg	ttagtatttt	450
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actacaaagg	catttcttcc	tgcaatgacg	aagaataacc	atggccatat	600
tgctactgtg	gcttcggcag	ctggacatgt	ctcggtcccc	ttcttactgg	650
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gatgaactgg	ctgccttaca	aataactgga	gtcaaaacaa	catgtctgtg	750
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gaccactct	ggaacctgag	gaagtggtaa	acaggctgat	gcatgggatt	850
ctgactgagc	agaagatgat	ttttattcca	tcttctatag	cttttttaac	900
aacattggaa	aggatccttc	ctgagcgttt	cctggcagtt	ttaaaacgaa	950
aaatcagtgt	taagtttgat	gcagttattg	gatataaaat	gaaagcgcaa	1000
taagcaccta	gttttctgaa	aactgattta	ccagggttag	gttgatgtca	1050
tctaatagtg	ccagaatttt	aatgtttgaa	cttctgtttt	ttctaattat	1100
ccccatttct	tcaatatcat	ttttgaggct	ttggcagtct	tcatttacta	1150
ccacttgttc	tttagccaaa	agctgattac	atatgatata	aacagagaaa	1200
tacctttaga	ggtgacttta	aggaaaatga	agaaaaagaa	ccaaaatgac	1250
tttattaaaa	taatttccaa	gattatttgt	ggctcacctg	aaggctttgc	1300
aaaatttgta	ccataaccgt	ttatttaaca	tatatTTTTT	tttttgattg	1350
cacttaaatt	ttgtataatt	tgtgtttctt	tttctgttct	acataaaatc	1400
agaaacttca	agctctctaa	ataaaaatgaa	ggactatatc	tagtggtatt	1450
tcacaatgaa	tatcatgaac	tctcaatggg	taggtttcat	cctacccatt	1500

[illegible]

<400> 37

32

200	205	210
Val Lys Thr Thr Cys Leu Cys Pro Asn Phe Val Asn Thr Gly Phe		
215	220	225
Ile Lys Asn Pro Ser Thr Ser Leu Gly Pro Thr Leu Glu Pro Glu		
230	235	240
Glu Val Val Asn Arg Leu Met His Gly Ile Leu Thr Glu Gln Lys		
245	250	255
Met Ile Phe Ile Pro Ser Ser Ile Ala Phe Leu Thr Thr Leu Glu		
260	265	270
Arg Ile Leu Pro Glu Arg Phe Leu Ala Val Leu Lys Arg Lys Ile		
275	280	285
Ser Val Lys Phe Asp Ala Val Ile Gly Tyr Lys Met Lys Ala Gln		
290	295	300

<210> 38

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 38

ggtgaaggca gaaattggag atg 23

<210> 39

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 39

atcccatgca tcagcctgtt tacc 24

<210> 40

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 40

gctgggtgtag tctatacatc agatttggtt gctacacaag atcctcag 48

<210> 41

<211> 1377

<212> DNA

<213> Homo Sapien

<400> 41

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gaaccaggac tggggtgacg gcagggcagg gggcgcttg ccggggagaa 100
gcgcgggggc tggagcacca ccaactggag ggtccggagt agcgagcgcc 150
ccgaaggagg ccatcgggga gccgggaggg gggactgca gaggaccccg 200
gcgtccgggc tcccgggtgc agcgctatga ggccactcct cgtcctgctg 250
ctcctggggc tggcgcccg ctcgccccca ctggacgaca acaagatccc 300
cagcctctgc ccggggcacc ccggccttcc aggcacgccg ggccaccatg 350
gcagccaggg cttgccgggc cgcgatggcc gcgacggccg cgacggcgcg 400
cccggggctc cgggagagaa aggcgagggc gggaggcccg gactgccggg 450
acctcgaggg gaccccgggc cgcgaggaga ggcgggacct gcggggccca 500
ccgggcctgc cggggagtgc tcgggtgctc cgcgatccgc cttcagcgcc 550
aagcgctccg agagccgggt gcctccgccg tctgacgcac cttgccctt 600
cgaccgcgtg ctggtgaacg agcagggaca ttacgacgcc gtcaccggca 650
agtacacctg ccagggtgct ggggtctact acttcgccgt ccatgccacc 700
gtctaccggg ccagcctgca gtttgatctg gtgaagaatg gcgaatccat 750
tgccctcttc ttccagtttt tcgggggggtg gcccaagcca gcctcgctct 800
cggggggggc catggtgagg ctggagcctg aggaccaagt gtgggtgcag 850
gtgggtgtgg gtgactacat tggcatctat gccagcatca agacagacag 900
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tattgtgaat gactagggag gtggggtaga gcactctccg tcctgctgct 1100
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aaaaaaaaa aaaaaaaaaa aaaaaaa 1377

<210> 42

<211> 243
 <212> PRT
 <213> Homo Sapien

<400> 42

Met	Arg	Pro	Leu	Leu	Val	Leu	Leu	Leu	Leu	Gly	Leu	Ala	Ala	Gly	1	5	10	15
Ser	Pro	Pro	Leu	Asp	Asp	Asn	Lys	Ile	Pro	Ser	Leu	Cys	Pro	Gly	20	25	30	
His	Pro	Gly	Leu	Pro	Gly	Thr	Pro	Gly	His	His	Gly	Ser	Gln	Gly	35	40	45	
Leu	Pro	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Ala	Pro	Gly	50	55	60	
Ala	Pro	Gly	Glu	Lys	Gly	Glu	Gly	Gly	Arg	Pro	Gly	Leu	Pro	Gly	65	70	75	
Pro	Arg	Gly	Asp	Pro	Gly	Pro	Arg	Gly	Glu	Ala	Gly	Pro	Ala	Gly	80	85	90	
Pro	Thr	Gly	Pro	Ala	Gly	Glu	Cys	Ser	Val	Pro	Pro	Arg	Ser	Ala	95	100	105	
Phe	Ser	Ala	Lys	Arg	Ser	Glu	Ser	Arg	Val	Pro	Pro	Pro	Ser	Asp	110	115	120	
Ala	Pro	Leu	Pro	Phe	Asp	Arg	Val	Leu	Val	Asn	Glu	Gln	Gly	His	125	130	135	
Tyr	Asp	Ala	Val	Thr	Gly	Lys	Phe	Thr	Cys	Gln	Val	Pro	Gly	Val	140	145	150	
Tyr	Tyr	Phe	Ala	Val	His	Ala	Thr	Val	Tyr	Arg	Ala	Ser	Leu	Gln	155	160	165	
Phe	Asp	Leu	Val	Lys	Asn	Gly	Glu	Ser	Ile	Ala	Ser	Phe	Phe	Gln	170	175	180	
Phe	Phe	Gly	Gly	Trp	Pro	Lys	Pro	Ala	Ser	Leu	Ser	Gly	Gly	Ala	185	190	195	
Met	Val	Arg	Leu	Glu	Pro	Glu	Asp	Gln	Val	Trp	Val	Gln	Val	Gly	200	205	210	
Val	Gly	Asp	Tyr	Ile	Gly	Ile	Tyr	Ala	Ser	Ile	Lys	Thr	Asp	Ser	215	220	225	
Thr	Phe	Ser	Gly	Phe	Leu	Val	Tyr	Ser	Asp	Trp	His	Ser	Ser	Pro	230	235	240	
Val	Phe	Ala																

<210> 43
 <211> 24

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 43
 tacaggccca gtcaggacca gggg 24

 <210> 44
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 44
 agccagcctc gctctcgg 18

 <210> 45
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 45
 gtctgcgatc aggtctgg 18

 <210> 46
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 46
 gaaagaggca atggattcgc 20

 <210> 47
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 47
 gattacact tgccagcaca gcac 24

 <210> 48
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 48

ggagcaccac caactggagg gtccggagta gcgagcgccc cgaag 45

<210> 49

<211> 1876

<212> DNA

<213> Homo Sapien

<400> 49

ctcttttgtc caccagccca gcctgactcc tggagattgt gaatagctcc 50
atccagcctg agaaacaagc cgggtggctg agccaggctg tgcacggagc 100
acctgacggg cccaacagac ccattgctga tccagagacc tcccctggcc 150
gggggcatct cctggctgtg ctcttgccc tcttgccac cacctgggca 200
gaggtgtggc caccacagct gcaggagcag gctccgatgg ccggagccct 250
gaacaggaag gagagtttct tgcctctctc cctgcacaac cgctgcccga 300
gctgggtcca gcccctgctg gctgacatgc ggaggctgga ctggagtgc 350
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cccgagcctg gcattccggc tgtggcgcc cctgcaagtg ggctggaaca 450
tgcagctgct gcccgcgggc ttggcgctct ttgttgaagt ggtcagccta 500
tggtttgcag aggggcagcg gtacagccac gcggcaggag agtgtgctcg 550
caacgccacc tgcaccact acacgcagct cgtgtgggcc acctcaagcc 600
agctgggctg tgggcggcac ctgtgctctg caggccagac agcgatagaa 650
gcctttgtct gtgcctactc ccccgaggc aactgggagg tcaacgggaa 700
gacaatcctc cctataaga aggttgctg gtgttcgctc tgcacagcca 750
gtgtctcagg ctgcttcaaa gcctgggacc atgcaggggg gctctgtgag 800
gtccccagga atccttgctg catgagctgc cagaacctg gacgtctcaa 850
catcagcacc tgccactgcc actgtcccc tggctacacg ggagatact 900
gccaagtgcg gtgcagcctg cagtgtgtgc acggccggtt ccgggaggag 950
gagtgctcgt gcgtctgtga catcggctac gggggagccc agtgtgccac 1000
caaggtgcat ttcccttcc acacctgtga cctgaggatc gacggagact 1050
gcttcatggt gtcttcagag gcagacacct attacagagc caggatgaaa 1100
tgtcagagga aaggcggggt gctggcccag atcaagagcc agaaagtgc 1150

[illegible]

<211> 455

<212> PRT

<213> Homo Sapien

Met Leu His Pro Glu Thr Ser Pro Gly Arg Gly His Leu Leu Ala
1 5 10 15

Val Leu Leu Ala Leu Leu Gly Thr Thr Trp Ala Glu Val Trp Pro
20 25 30

Pro Gln Leu Gln Glu Gln Ala Pro Met Ala Gly Ala Leu Asn Arg
35 40 45

Lys Glu Ser Phe Leu Leu Leu Ser Leu His Asn Arg Leu Arg Ser
50 55 60

Trp Val Gln Pro Pro Ala Ala Asp Met Arg Arg Leu Asp Trp Ser
65 70 75

Asp Ser Leu Ala Gln Leu Ala Gln Ala Arg Ala Ala Leu Cys Gly
80 85 90

Ile Pro Thr Pro Ser Leu Ala Ser Gly Leu Trp Arg Thr Leu Gln
95 100 105

38

				110					115					120
Val	Glu	Val	Val	Ser 125	Leu	Trp	Phe	Ala	Glu 130	Gly	Gln	Arg	Tyr	Ser 135
His	Ala	Ala	Gly	Glu 140	Cys	Ala	Arg	Asn	Ala 145	Thr	Cys	Thr	His	Tyr 150
Thr	Gln	Leu	Val	Trp 155	Ala	Thr	Ser	Ser	Gln 160	Leu	Gly	Cys	Gly	Arg 165
His	Leu	Cys	Ser	Ala 170	Gly	Gln	Thr	Ala	Ile 175	Glu	Ala	Phe	Val	Cys 180
Ala	Tyr	Ser	Pro	Gly 185	Gly	Asn	Trp	Glu	Val 190	Asn	Gly	Lys	Thr	Ile 195
Ile	Pro	Tyr	Lys	Lys 200	Gly	Ala	Trp	Cys	Ser 205	Leu	Cys	Thr	Ala	Ser 210
Val	Ser	Gly	Cys	Phe 215	Lys	Ala	Trp	Asp	His 220	Ala	Gly	Gly	Leu	Cys 225
Glu	Val	Pro	Arg	Asn 230	Pro	Cys	Arg	Met	Ser 235	Cys	Gln	Asn	His	Gly 240
Arg	Leu	Asn	Ile	Ser 245	Thr	Cys	His	Cys	His 250	Cys	Pro	Pro	Gly	Tyr 255
Thr	Gly	Arg	Tyr	Cys 260	Gln	Val	Arg	Cys	Ser 265	Leu	Gln	Cys	Val	His 270
Gly	Arg	Phe	Arg	Glu 275	Glu	Glu	Cys	Ser	Cys 280	Val	Cys	Asp	Ile	Gly 285
Tyr	Gly	Gly	Ala	Gln 290	Cys	Ala	Thr	Lys	Val 295	His	Phe	Pro	Phe	His 300
Thr	Cys	Asp	Leu	Arg 305	Ile	Asp	Gly	Asp	Cys 310	Phe	Met	Val	Ser	Ser 315
Glu	Ala	Asp	Thr	Tyr 320	Tyr	Arg	Ala	Arg	Met 325	Lys	Cys	Gln	Arg	Lys 330
Gly	Gly	Val	Leu	Ala 335	Gln	Ile	Lys	Ser	Gln 340	Lys	Val	Gln	Asp	Ile 345
Leu	Ala	Phe	Tyr	Leu 350	Gly	Arg	Leu	Glu	Thr 355	Thr	Asn	Glu	Val	Thr 360
Asp	Ser	Asp	Phe	Glu 365	Thr	Arg	Asn	Phe	Trp 370	Ile	Gly	Leu	Thr	Tyr 375
Lys	Thr	Ala	Lys	Asp 380	Ser	Phe	Arg	Trp	Ala 385	Thr	Gly	Glu	His	Gln 390
Ala	Phe	Thr	Ser	Phe 395	Ala	Phe	Gly	Gln	Pro 400	Asp	Asn	His	Gly	Leu 405

Val Trp Leu Ser Ala Ala Met Gly Phe Gly Asn Cys Val Glu Leu
 410 415 420

Gln Ala Ser Ala Ala Phe Asn Trp Asn Asp Gln Arg Cys Lys Thr
 425 430 435

Arg Asn Arg Tyr Ile Cys Gln Phe Ala Gln Glu His Ile Ser Arg
 440 445 450

Trp Gly Pro Gly Ser
 455

<210> 51
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 51
 aggaacttct ggatcgggct cacc 24

<210> 52
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 52
 gggctctgggc caggtggaag agag 24

<210> 53
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 53
 gccaaaggact ccttccgctg ggccacaggg gagcaccagg ccttc 45

<210> 54
 <211> 2331
 <212> DNA
 <213> Homo Sapien

<400> 54
 cggacgcgtg ggctgggagc tgcaaagcgt gtcccgccgg gtcccgagc 50
 gtcccgagcc ctgccccgc catgctctg ctgctggggc tgtgcctggg 100
 gctgtccctg tgtgtggggg cgcaggaaga ggccagagc tggggccact 150
 cttcggagca ggatggactc aggggtccga ggcaagtcag actgttgagc 200

aggctgaaaa ccaaaccctt gatgacagaa ttctcagtga agtctacat 250
catttcccgt tatgccttca ctacggtttc ctgcagaatg ctgaacagag 300
cttctgaaga ccaggacatt gagttccaga tgcagattcc agctgcagct 350
ttcatcacca acttcactat gcttattgga gacaagggtg atcagggcga 400
aattacagag agagaaaaga agagtgggtga tagggtaaaa gagaaaagga 450
ataaaaccac agaagaaaat ggagagaagg ggactgaaat attcagagct 500
tctgcagtga ttcccagcaa ggacaaagcc gcctttttcc tgagttatga 550
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gaggggcagt gggcgcgggg aagatgattc tgggcctccc ccatctactg 750
tcattaacca aaatgaaaca ttgccaaca taatttttaa acctactgta 800
gtacaacaag ccaggattgc ccagaatgga attttgggag actttatcat 850
tagatatgac gtcaatagag aacagagcat tggggacatc caggttctaa 900
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aagaatgtgg tattcgtgct tgacagcagt gcttctatgg tgggaaccaa 1000
actccggcag accaaggatg cctcttcac aattctccat gacctccgac 1050
cccaggaccg tttcagtatc attggatttt ccaaccgatg caaagtatgg 1100
aaggaccact tgatatcagt cactccagac agcatcaggg atgggaaagt 1150
gtacattcac catatgtcac ccactggagg cacagacatc aacggggccc 1200
tgcagagggc catcaggctc ctcaacaagt acgtggccca cagtggcatt 1250
ggagaccgga gcgtgtccct catcgtcttc ctgacggatg ggaagccac 1300
ggtcggggag acgcacaccc tcaagatcct caacaacacc cgagaggccg 1350
cccaggcca agtctgcac ttaccattg gcatcggcaa cgacgtggac 1400
ttcaggctgc tggagaaact gtcgctggag aactgtggcc tcacacggcg 1450
cgtgcacgag gaggaggacg caggctcgca gctcatcggg ttctacgatg 1500
aaatcaggac cccgtcctc tctgacatcc gcatcgatta tccccccagc 1550
tcagtgggtg aggccaccaa gacctgttc cccaactact tcaacggctc 1600
ggagatcatc attgcgggga agctgggtgga caggaagctg gatcacctgc 1650

[illegible]

<211> 694

<213> Homo Sapien

Met Leu Leu Leu Leu Gly Leu Cys Leu Gly Leu Ser Leu Cys Val
1 5 10 15

Gly Ser Gln Glu Glu Ala Gln Ser Trp Gly His Ser Ser Glu Gln
20 25 30

Asp Gly Leu Arg Val Pro Arg Gln Val Arg Leu Leu Gln Arg Leu
35 40 45

Lys Thr Lys Pro Leu Met Thr Glu Phe Ser Val Lys Ser Thr Ile
50 55 60

Ile Ser Arg Tyr Ala Phe Thr Thr Val Ser Cys Arg Met Leu Asn
65 70 75

Arg Ala Ser Glu Asp Gln Asp Ile Glu Phe Gln Met Gln Ile Pro
80 85 90

Ala Ala Ala Phe Ile Thr Asn Phe Thr Met Leu Ile Gly Asp Lys
95 100 105

Val Tyr Gln Gly Glu Ile Thr Glu Arg Glu Lys Lys Ser Gly Asp
110 115 120

Arg	Val	Lys	Glu	Lys 125	Arg	Asn	Lys	Thr	Thr 130	Glu	Glu	Asn	Gly	Glu 135
Lys	Gly	Thr	Glu	Ile 140	Phe	Arg	Ala	Ser	Ala 145	Val	Ile	Pro	Ser	Lys 150
Asp	Lys	Ala	Ala	Phe 155	Phe	Leu	Ser	Tyr	Glu 160	Glu	Leu	Leu	Gln	Arg 165
Arg	Leu	Gly	Lys	Tyr 170	Glu	His	Ser	Ile	Ser 175	Val	Arg	Pro	Gln	Glu 180
Leu	Ser	Gly	Arg	Leu 185	Ser	Val	Asp	Val	Asn 190	Ile	Leu	Glu	Ser	Ala 195
Gly	Ile	Ala	Ser	Leu 200	Glu	Val	Leu	Pro	Leu 205	His	Asn	Ser	Arg	Gln 210
Arg	Gly	Ser	Gly	Arg 215	Gly	Glu	Asp	Asp	Ser 220	Gly	Pro	Pro	Pro	Ser 225
Thr	Val	Ile	Asn	Gln 230	Asn	Glu	Thr	Phe	Ala 235	Asn	Ile	Ile	Phe	Lys 240
Pro	Thr	Val	Val	Gln 245	Gln	Ala	Arg	Ile	Ala 250	Gln	Asn	Gly	Ile	Leu 255
Gly	Asp	Phe	Ile	Ile 260	Arg	Tyr	Asp	Val	Asn 265	Arg	Glu	Gln	Ser	Ile 270
Gly	Asp	Ile	Gln	Val 275	Leu	Asn	Gly	Tyr	Phe 280	Val	His	Tyr	Phe	Ala 285
Pro	Lys	Asp	Leu	Pro 290	Pro	Leu	Pro	Lys	Asn 295	Val	Val	Phe	Val	Leu 300
Asp	Ser	Ser	Ala	Ser 305	Met	Val	Gly	Thr	Lys 310	Leu	Arg	Gln	Thr	Lys 315
Asp	Ala	Leu	Phe	Thr 320	Ile	Leu	His	Asp	Leu 325	Arg	Pro	Gln	Asp	Arg 330
Phe	Ser	Ile	Ile	Gly 335	Phe	Ser	Asn	Arg	Ile 340	Lys	Val	Trp	Lys	Asp 345
His	Leu	Ile	Ser	Val 350	Thr	Pro	Asp	Ser	Ile 355	Arg	Asp	Gly	Lys	Val 360
Tyr	Ile	His	His	Met 365	Ser	Pro	Thr	Gly	Gly 370	Thr	Asp	Ile	Asn	Gly 375
Ala	Leu	Gln	Arg	Ala 380	Ile	Arg	Leu	Leu	Asn 385	Lys	Tyr	Val	Ala	His 390
Ser	Gly	Ile	Gly	Asp 395	Arg	Ser	Val	Ser	Leu 400	Ile	Val	Phe	Leu	Thr 405
Asp	Gly	Lys	Pro	Thr	Val	Gly	Glu	Thr	His	Thr	Leu	Lys	Ile	Leu

410	415	420
Asn Asn Thr Arg Glu Ala Ala Arg Gly Gln Val Cys Ile Phe Thr 425	430	435
Ile Gly Ile Gly Asn Asp Val Asp Phe Arg Leu Leu Glu Lys Leu 440	445	450
Ser Leu Glu Asn Cys Gly Leu Thr Arg Arg Val His Glu Glu Glu 455	460	465
Asp Ala Gly Ser Gln Leu Ile Gly Phe Tyr Asp Glu Ile Arg Thr 470	475	480
Pro Leu Leu Ser Asp Ile Arg Ile Asp Tyr Pro Pro Ser Ser Val 485	490	495
Val Gln Ala Thr Lys Thr Leu Phe Pro Asn Tyr Phe Asn Gly Ser 500	505	510
Glu Ile Ile Ile Ala Gly Lys Leu Val Asp Arg Lys Leu Asp His 515	520	525
Leu His Val Glu Val Thr Ala Ser Asn Ser Lys Lys Phe Ile Ile 530	535	540
Leu Lys Thr Asp Val Pro Val Arg Pro Gln Lys Ala Gly Lys Asp 545	550	555
Val Thr Gly Ser Pro Arg Pro Gly Gly Asp Gly Glu Gly Asp Thr 560	565	570
Asn His Ile Glu Arg Leu Trp Ser Tyr Leu Thr Thr Lys Glu Leu 575	580	585
Leu Ser Ser Trp Leu Gln Ser Asp Asp Glu Pro Glu Lys Glu Arg 590	595	600
Leu Arg Gln Arg Ala Gln Ala Leu Ala Val Ser Tyr Arg Phe Leu 605	610	615
Thr Pro Phe Thr Ser Met Lys Leu Arg Gly Pro Val Pro Arg Met 620	625	630
Asp Gly Leu Glu Glu Ala His Gly Met Ser Ala Ala Met Gly Pro 635	640	645
Glu Pro Val Val Gln Ser Val Arg Gly Ala Gly Thr Gln Pro Gly 650	655	660
Pro Leu Leu Lys Lys Pro Asn Ser Val Lys Lys Lys Gln Asn Lys 665	670	675
Thr Lys Lys Arg His Gly Arg Asp Gly Val Phe Pro Leu His His 680	685	690
Leu Gly Ile Arg		

<210> 56
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 56
gtgggaacca aactccggca gacc 24

<210> 57
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 57
cacatcgagc gtctctgg 18

<210> 58
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 58
agccgctcct tctccggttc atcg 24

<210> 59
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 59
tggaaggacc acttgatata agtcactcca gacagcatca gggatggg 48

<210> 60
<211> 1413
<212> DNA
<213> Homo Sapien

<400> 60
cggacgcgtg ggggtgcccga catggcgagt gtagtgctgc cgagcggatc 50
ccagtgtgcg gcggcagcgg cggcgggcggc gcctcccggg ctccggcttc 100
tgctgttgct cttctccgcc gcggcactga tccccacagg tgatgggcag 150
aatctgttta cgaaagacgt gacagtgatc gagggagagg ttgcgacat 200

cagttgccaa gtcaataaga gtgacgactc tgtgattcag ctactgaatc 250
ccaacaggca gaccatttat ttcagggact tcaggccttt gaaggacagc 300
aggtttcagt tgctgaattt ttctagcagt gaactcaaag tatcattgac 350
aaacgtctca atttctgatg aaggaagata cttttgccag ctctataaccg 400
atccccca gaaaggttac accaccatca cagtcctggt cccaccacgt 450
aatctgatga tcgatatcca gaaagacact gcggtggaag gtgaggagat 500
tgaagtcaac tgcactgcta tggccagcaa gccagccacg actatcaggt 550
ggttcaaagg gaacacagag ctaaaaggca aatcggaggt ggaagagtgg 600
tcagacatgt aactgtgac cagtcagctg atgctgaagg tgcacaagga 650
ggacgatggg gtcccagtga tctgccaggt ggagcaccct gcggtcactg 700
gaaacctgca gaccagcgg tatctagaag tacagtataa gcctcaagtg 750
cacattcaga tgacttatcc tctacaaggc ttaaccggg aaggggacgc 800
gcttgagtta acatgtgaag ccatcgggaa gcccagcct gtgatggtaa 850
cttgggtgag agtcgatgat gaaatgcctc aacacgccgt actgtctggg 900
cccaacctgt tcatcaataa cctaaacaaa acagataatg gtacataaccg 950
ctgtgaagct tcaaacatag tggggaaagc tcaactcgat tatatgctgt 1000
atgtatacga tccccca actatccctc ctcccacaac aaccaccacc 1050
accaccacca ccaccaccac caccatcctt accatcatca cagattccccg 1100
agcaggtgaa gaaggctcga tcagggcagt ggatcatgcc gtgatcgggtg 1150
gcgtcgtggc ggtggtggtg ttcgccatgc tgtgcttget catcattctg 1200
gggcgctatt ttgccagaca taaaggtaga tacttcactc atgaagccaa 1250
aggagccgat gacgcagcag acgcagacac agctataatc aatgcagaag 1300
gaggacagaa caactccgaa gaaaagaaag agtacttcat ctagatcagc 1350
ctttttgttt caatgaggtg tccaactggc cctatttaga tgataaagag 1400
acagtgatat tgg 1413

<210> 61
<211> 440
<212> PRT
<213> Homo Sapien

<400> 61
Met Ala Ser Val Val Leu Pro Ser Gly Ser Gln Cys Ala Ala Ala
1 5 10 15

Ala	Ala	Ala	Ala	Ala 20	Pro	Pro	Gly	Leu	Arg 25	Leu	Leu	Leu	Leu	Leu 30
Phe	Ser	Ala	Ala	Ala 35	Leu	Ile	Pro	Thr	Gly 40	Asp	Gly	Gln	Asn	Leu 45
Phe	Thr	Lys	Asp	Val 50	Thr	Val	Ile	Glu	Gly 55	Glu	Val	Ala	Thr	Ile 60
Ser	Cys	Gln	Val	Asn 65	Lys	Ser	Asp	Asp	Ser 70	Val	Ile	Gln	Leu	Leu 75
Asn	Pro	Asn	Arg	Gln 80	Thr	Ile	Tyr	Phe	Arg 85	Asp	Phe	Arg	Pro	Leu 90
Lys	Asp	Ser	Arg	Phe 95	Gln	Leu	Leu	Asn	Phe 100	Ser	Ser	Ser	Glu	Leu 105
Lys	Val	Ser	Leu	Thr 110	Asn	Val	Ser	Ile	Ser 115	Asp	Glu	Gly	Arg	Tyr 120
Phe	Cys	Gln	Leu	Tyr 125	Thr	Asp	Pro	Pro	Gln 130	Glu	Ser	Tyr	Thr	Thr 135
Ile	Thr	Val	Leu	Val 140	Pro	Pro	Arg	Asn	Leu 145	Met	Ile	Asp	Ile	Gln 150
Lys	Asp	Thr	Ala	Val 155	Glu	Gly	Glu	Glu	Ile 160	Glu	Val	Asn	Cys	Thr 165
Ala	Met	Ala	Ser	Lys 170	Pro	Ala	Thr	Thr	Ile 175	Arg	Trp	Phe	Lys	Gly 180
Asn	Thr	Glu	Leu	Lys 185	Gly	Lys	Ser	Glu	Val 190	Glu	Glu	Trp	Ser	Asp 195
Met	Tyr	Thr	Val	Thr 200	Ser	Gln	Leu	Met	Leu 205	Lys	Val	His	Lys	Glu 210
Asp	Asp	Gly	Val	Pro 215	Val	Ile	Cys	Gln	Val 220	Glu	His	Pro	Ala	Val 225
Thr	Gly	Asn	Leu	Gln 230	Thr	Gln	Arg	Tyr	Leu 235	Glu	Val	Gln	Tyr	Lys 240
Pro	Gln	Val	His	Ile 245	Gln	Met	Thr	Tyr	Pro 250	Leu	Gln	Gly	Leu	Thr 255
Arg	Glu	Gly	Asp	Ala 260	Leu	Glu	Leu	Thr	Cys 265	Glu	Ala	Ile	Gly	Lys 270
Pro	Gln	Pro	Val	Met 275	Val	Thr	Trp	Val	Arg 280	Val	Asp	Asp	Glu	Met 285
Pro	Gln	His	Ala	Val 290	Leu	Ser	Gly	Pro	Asn 295	Leu	Phe	Ile	Asn	Asn 300
Leu	Asn	Lys	Thr	Asp	Asn	Gly	Thr	Tyr	Arg	Cys	Glu	Ala	Ser	Asn

<400> 64
atcatcacag attcccgagc 20

<210> 65
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 65
ttcaatctcc tcaccttcca ccgc 24

<210> 66
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 66
atagctgtgt ctgcgtctgc tgcg 24

<210> 67
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 67
cgcggcactg atccccacag gtgatgggca gaatctgttt acgaaagacg 50

<210> 68
<211> 2555
<212> DNA
<213> Homo Sapien

<400> 68
ggggcggtg gacgcggact cgaacgcagt tgcttcggga cccaggaccc 50
cctcgggccc gaccgcagc gaaagactga ggccgcggcc tgccccgcc 100
ggctccctgc gccgcgccg cctcccggga cagaagatgt gctccagggt 150
ccctctgctg ctgccgtgc tctgtact ggccctgggg cctggggtgc 200
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actgcccgcc aggggaccac ggtgccccga gacgtgccac ccgacacggt 300
ggggctgtac gtctttgaga acggcatcac catgctcgac gcaagcagct 350
ttgcgggect gccgggectg cagctcctgg acctgtcaca gaaccagatc 400

gccagcctgc	gcctgccccg	cctgctgctg	ctggacctca	gccacaacag	450
cctcctggcc	ctggagcccc	gcatacctgga	cactgccaac	gtggaggcgc	500
tgcggtctggc	tggctctgggg	ctgcagcagc	tggacgaggg	gctcttcagc	550
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agtgccacct	gtgatccgag	gcctccgggg	cctgacgcgc	ctgcggctgg	650
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gctgcctgc	aggagctgga	tgtgagcaac	ctaagcctgc	aggccctgcc	750
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caccgactgt	agggcctgtc	ccccagcccc	aggactgccc	accgtccacc	1150
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cctatcgcaa	cctatcgggc	cctgataagc	ggctggtgac	gctgcgactg	1450
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ttactccgtc	tgtgtcatgc	ctttggggcc	cgggcgggtg	ccggagggcg	1550
aggaggcctg	cggggaggcc	catacacc	cagccgtcca	ctccaaccac	1600
gccccagtca	cccaggcccc	cgagggcaac	ctgccgctcc	tcattgcgcc	1650
cgccctggcc	gcggtgctcc	tggccgcgct	ggctgcggtg	ggggcagcct	1700
actgtgtgcg	gcggggggcg	gccatggcag	cagcggctca	ggacaaaggg	1750
caggtggggc	caggggctgg	gccctggaa	ctggagggag	tgaaggtccc	1800
cttggagcca	ggcccgaagg	caacagaggg	cgggtggagag	gccctgcccc	1850

gcgggtctga gtgtgaggtg ccactcatgg gcttcccagg gcctggcctc 1900
 cagtcacccc tccacgcaaa gccctacatc taagccagag agagacaggg 1950
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 catgttttgc ttttttaaaa tatatatata tttataagag atcctttccc 2450
 atttattctg ggaagatgtt tttcaaactc agagacaagg actttggttt 2500
 ttgtaagaca aacgatgata tgaaggcctt ttgtaagaaa aaataaaaaa 2550
 aaaaa 2555

<210> 69
 <211> 598
 <212> PRT
 <213> Homo Sapien

<400> 69
 Met Cys Ser Arg Val Pro Leu Leu Leu Pro Leu Leu Leu Leu Leu
 1 5 10 15
 Ala Leu Gly Pro Gly Val Gln Gly Cys Pro Ser Gly Cys Gln Cys
 20 25 30
 Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr
 35 40 45
 Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe
 50 55 60
 Glu Asn Gly Ile Thr Met Leu Asp Ala Ser Ser Phe Ala Gly Leu
 65 70 75
 Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser
 80 85 90
 Leu Arg Leu Pro Arg Leu Leu Leu Leu Asp Leu Ser His Asn Ser
 95 100 105
 Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala Asn Val Glu

				110					115					120
Ala	Leu	Arg	Leu	Ala 125	Gly	Leu	Gly	Leu	Gln 130	Gln	Leu	Asp	Glu	Gly 135
Leu	Phe	Ser	Arg	Leu 140	Arg	Asn	Leu	His	Asp 145	Leu	Asp	Val	Ser	Asp 150
Asn	Gln	Leu	Glu	Arg 155	Val	Pro	Pro	Val	Ile 160	Arg	Gly	Leu	Arg	Gly 165
Leu	Thr	Arg	Leu	Arg 170	Leu	Ala	Gly	Asn	Thr 175	Arg	Ile	Ala	Gln	Leu 180
Arg	Pro	Glu	Asp	Leu 185	Ala	Gly	Leu	Ala	Ala 190	Leu	Gln	Glu	Leu	Asp 195
Val	Ser	Asn	Leu	Ser 200	Leu	Gln	Ala	Leu	Pro 205	Gly	Asp	Leu	Ser	Gly 210
Leu	Phe	Pro	Arg	Leu 215	Arg	Leu	Leu	Ala	Ala 220	Ala	Arg	Asn	Pro	Phe 225
Asn	Cys	Val	Cys	Pro 230	Leu	Ser	Trp	Phe	Gly 235	Pro	Trp	Val	Arg	Glu 240
Ser	His	Val	Thr	Leu 245	Ala	Ser	Pro	Glu	Glu 250	Thr	Arg	Cys	His	Phe 255
Pro	Pro	Lys	Asn	Ala 260	Gly	Arg	Leu	Leu	Leu 265	Glu	Leu	Asp	Tyr	Ala 270
Asp	Phe	Gly	Cys	Pro 275	Ala	Thr	Thr	Thr	Thr 280	Ala	Thr	Val	Pro	Thr 285
Thr	Arg	Pro	Val	Val 290	Arg	Glu	Pro	Thr	Ala 295	Leu	Ser	Ser	Ser	Leu 300
Ala	Pro	Thr	Trp	Leu 305	Ser	Pro	Thr	Ala	Pro 310	Ala	Thr	Glu	Ala	Pro 315
Ser	Pro	Pro	Ser	Thr 320	Ala	Pro	Pro	Thr	Val 325	Gly	Pro	Val	Pro	Gln 330
Pro	Gln	Asp	Cys	Pro 335	Pro	Ser	Thr	Cys	Leu 340	Asn	Gly	Gly	Thr	Cys 345
His	Leu	Gly	Thr	Arg 350	His	His	Leu	Ala	Cys 355	Leu	Cys	Pro	Glu	Gly 360
Phe	Thr	Gly	Leu	Tyr 365	Cys	Glu	Ser	Gln	Met 370	Gly	Gln	Gly	Thr	Arg 375
Pro	Ser	Pro	Thr	Pro 380	Val	Thr	Pro	Arg	Pro 385	Pro	Arg	Ser	Leu	Thr 390
Leu	Gly	Ile	Glu	Pro 395	Val	Ser	Pro	Thr	Ser 400	Leu	Arg	Val	Gly	Leu 405

Gln Arg Tyr Leu	Gln Gly Ser Ser Val	Gln Leu Arg Ser Leu Arg
410	415	420
Leu Thr Tyr Arg	Asn Leu Ser Gly Pro	Asp Lys Arg Leu Val Thr
425	430	435
Leu Arg Leu Pro	Ala Ser Leu Ala Glu	Tyr Thr Val Thr Gln Leu
440	445	450
Arg Pro Asn Ala	Thr Tyr Ser Val Cys	Val Met Pro Leu Gly Pro
455	460	465
Gly Arg Val Pro	Glu Gly Glu Glu Ala	Cys Gly Glu Ala His Thr
470	475	480
Pro Pro Ala Val	His Ser Asn His Ala	Pro Val Thr Gln Ala Arg
485	490	495
Glu Gly Asn Leu	Pro Leu Leu Ile Ala	Pro Ala Leu Ala Ala Val
500	505	510
Leu Leu Ala Ala	Leu Ala Ala Val Gly	Ala Ala Tyr Cys Val Arg
515	520	525
Arg Gly Arg Ala	Met Ala Ala Ala Ala	Gln Asp Lys Gly Gln Val
530	535	540
Gly Pro Gly Ala	Gly Pro Leu Glu Leu	Glu Gly Val Lys Val Pro
545	550	555
Leu Glu Pro Gly	Pro Lys Ala Thr Glu	Gly Gly Gly Glu Ala Leu
560	565	570
Pro Ser Gly Ser	Glu Cys Glu Val Pro	Leu Met Gly Phe Pro Gly
575	580	585
Pro Gly Leu Gln	Ser Pro Leu His Ala	Lys Pro Tyr Ile
590	595	

<210> 70

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 70

ccctccactg cccacccgac tg 22

<210> 71

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 71
cggttctggg gacgttaggg ctcg 24

<210> 72
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 72
ctgcccaccg tccacctgcc tcaat 25

<210> 73
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 73
aggactgccc accgtccacc tgcctcaatg ggggcacatg ccacc 45

<210> 74
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 74
acgcaaagcc ctacatctaa gccagagaga gacagggcag ctggg 45

<210> 75
<211> 1077
<212> DNA
<213> Homo Sapien

<400> 75
ggcactagga caaccttctt cccttctgca ccactgcccg tacccttacc 50
cgccccgcca cctccttget accccactct tgaaaccaca gctgttgcca 100
gggtccccag ctcatgccag cctcatctcc tttcttgcta gccccaaaag 150
ggcctccagg caacatgggg ggcccagtca gagagccggc actctcagtt 200
gccctctggt tgagttgggg ggcagctctg ggggccgtgg cttgtgccat 250
ggctctgctg acccaacaaa cagagctgca ggcctcagg agagaggtga 300
gccggctgca ggggacagga ggcccctccc agaatgggga agggatatccc 350
tggcagagtc tcccggagca gagttccgat gccctggaag cctgggagaa 400

Variable	Mean	SD	Min	Max
Age	34.5	10.2	21	55
Gender	Male	Female		
Marital status	Married	Single		
Education	High school	College		
Occupation	Manager	Worker		
Income	Low	High		
Health status	Good	Poor		
Stress level	Low	High		
Life satisfaction	Low	High		
Resilience	Low	High		
Optimism	Low	High		
Self-efficacy	Low	High		
Perceived stress	Low	High		
Depression	Low	High		
Anxiety	Low	High		
Loneliness	Low	High		
Quality of life	Low	High		
Physical health	Low	High		
Mental health	Low	High		
Social support	Low	High		
Life events	Low	High		
Personal growth	Low	High		
Meaning in life	Low	High		
Hope	Low	High		
Gratitude	Low	High		
Forgiveness	Low	High		
Emotional regulation	Low	High		
Problem-solving	Low	High		
Decision-making	Low	High		
Communication	Low	High		
Conflict resolution	Low	High		
Leadership	Low	High		
Teamwork	Low	High		
Work-life balance	Low	High		
Job satisfaction	Low	High		
Organizational commitment	Low	High		
Employee engagement	Low	High		
Productivity	Low	High		
Quality of work life	Low	High		
Work environment	Low	High		
Organizational culture	Low	High		
Leadership style	Low	High		
Employee turnover	Low	High		
Organizational performance	Low	High		
Customer satisfaction	Low	High		
Employee well-being	Low	High		
Organizational health	Low	High		
Business success	Low	High		
Market competition	Low	High		
Technological innovation	Low	High		
Globalization	Low	High		
Environmental sustainability	Low	High		
Social responsibility	Low	High		
Corporate governance	Low	High		
Stakeholder engagement	Low	High		
Brand reputation	Low	High		
Marketing effectiveness	Low	High		
Sales performance	Low	High		
Profitability	Low	High		
Shareholder value	Low	High		
Investor confidence	Low	High		
Financial stability	Low	High		
Operational efficiency	Low	High		
Process improvement	Low	High		
Quality management	Low	High		
Customer loyalty	Low	High		
Employee retention	Low	High		
Organizational agility	Low	High		
Strategic vision	Low	High		
Leadership development	Low	High		
Employee training	Low	High		
Organizational learning	Low	High		
Knowledge management	Low	High		
Innovation management	Low	High		
Business development	Low	High		
Market research	Low	High		
Competitive analysis	Low	High		
Strategic planning	Low	High		
Resource allocation	Low	High		
Budget management	Low	High		
Financial reporting	Low	High		
Compliance management	Low	High		
Risk management	Low	High		
Legal affairs	Low	High		
Human resources	Low	High		
Information technology	Low	High		
Operations management	Low	High		
Supply chain management	Low	High		
Logistics management	Low	High		
Manufacturing management	Low	High		
Product development	Low	High		
Project management	Low	High		
Change management	Low	High		
Organizational design	Low	High		
Leadership research	Low	High		
Employee research	Low	High		
Organizational research	Low	High		
Business research	Low	High		
Market research	Low	High		
Competitive research	Low	High		
Strategic research	Low	High		
Resource research	Low	High		
Budget research				

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<400> 76
Met Pro Ala Ser Ser Pro Phe Leu Leu Ala Pro Lys Gly Pro Pro
  1          5          10          15
Gly Asn Met Gly Gly Pro Val Arg Glu Pro Ala Leu Ser Val Ala
          20          25          30
Leu Trp Leu Ser Trp Gly Ala Ala Leu Gly Ala Val Ala Cys Ala
          35          40          45
Met Ala Leu Leu Thr Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg
          50          55          60
Glu Val Ser Arg Leu Gln Gly Thr Gly Gly Pro Ser Gln Asn Gly
          65          70          75
Glu Gly Tyr Pro Trp Gln Ser Leu Pro Glu Gln Ser Ser Asp Ala
          80          85          90
Leu Glu Ala Trp Glu Asn Gly Glu Arg Ser Arg Lys Arg Arg Ala
          95          100          105
Val Leu Thr Gln Lys Gln Lys Lys Gln His Ser Val Leu His Leu
          110          115          120

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[illegible]

<211> 2849

<213> Homo Sapien

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gggggggacc tgtggetgct cgtaccgccc cccaccctcc tcttctgcac 150

tgccgtcttc cggaagacct tttcccctgc tctgtttctc tcaccgaqtc 200

tgtgcatcgc cccggacctg gccgggagga ggcttggccg gcgggagatg 250

ctctaggggc ggcgcgggag gagcggccgg cgggacggag gccccggcag 300

gaagatgggc tcccgtagac agggactctt gctggcgtag tgcttgcctc 350

ttgcctttgc ctctggcctg gtctgagtc qtatcccca tatccaggg 400

gaacagcagg agtgggaggg gactgaggag ctgccgtcgc ctccggacca 450

tgccgagagg gctgaagaac aacatgaaaa atacaggccc agtcaggacc 500

agggggtccc tgettcccgg tgettgcgct gctgtgaccc cggtagctcc 550

atgtaccg cgaccgccgt gcccagatc aacatcacta tcttgaaagg 600

ggagaagggt gaccgcggag atcgaggcct ccaagggaaa tatggcaaaa 650

caggctcagc agggggccagg ggccacactg gacccaaagg gcagaagggc 700
 tccatggggg cccctgggga gcggtgcaag agccactacg ccgccttttc 750
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[illegible]

<211> 281

<213> Homo Sapien

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Leu Ala Phe Ala Ser Gly Leu Val Leu Ser Arg Val Pro His Val
20 25 30

Gln Gly Glu Gln Gln Glu Trp Glu Gly Thr Glu Glu Leu Pro Ser
35 40 45

Pro Pro Asp His Ala Glu Arg Ala Glu Glu Gln His Glu Lys Tyr
50 55 60

Arg Pro Ser Gln Asp Gln Gly Leu Pro Ala Ser Arg Cys Leu Arg
65 70 75

Cys Cys Asp Pro Gly Thr Ser Met Tyr Pro Ala Thr Ala Val Pro
80 85 90

Gln Ile Asn Ile Thr Ile Leu Lys Gly Glu Lys Gly Asp Arg Gly
95 100 105

Asp Arg Gly Leu Gln Gly Lys Tyr Gly Lys Thr Gly Ser Ala Gly

<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 81
cccgggtgctt gcgctgctgt gaccccggtg cctccatgta cccgg 45

<210> 82
<211> 2284
<212> DNA
<213> Homo Sapien

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ggcgccgggg tcctctcgac gccagagaga aatctcatca tctgtgcagc 150
cttcttaaag caaactaaga ccagagggag gattatcctt gacctttgaa 200
gacaaaaact aaactgaaat ttaaaatggt cttcggggga gaaggagct 250
tgacttacac tttggtaata atttgcttcc tgacactaag gctgtctgct 300
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gacaaagcat gtaacttgat gatcttcgac actcgaaaaa cagctagaca 500
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aaccagcaaa aggacttatg agttacagga taattacaga ttttccatct 600
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attattcaaa gccaccgat atctcatgga gagacacact ttctcagaag 750
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tatgcaaaga	aacagggttag	gacatctagg	ttccaattca	ttcacattct	2150
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<210> 83

<212> PRT

<400> 83

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Ser	Lys	Gly	Ile	Arg	Gly	Asn	Glu	Pro	Val	Tyr	Thr	Ser	Thr	Gln	50	55	60
Glu	Asp	Cys	Ile	Asn	Ser	Cys	Cys	Ser	Thr	Lys	Asn	Ile	Ser	Gly	65	70	75
Asp	Lys	Ala	Cys	Asn	Leu	Met	Ile	Phe	Asp	Thr	Arg	Lys	Thr	Ala	80	85	90
Arg	Gln	Pro	Asn	Cys	Tyr	Leu	Phe	Phe	Cys	Pro	Asn	Glu	Glu	Ala	95	100	105
Cys	Pro	Leu	Lys	Pro	Ala	Lys	Gly	Leu	Met	Ser	Tyr	Arg	Ile	Ile	110	115	120
Thr	Asp	Phe	Pro	Ser	Leu	Thr	Arg	Asn	Leu	Pro	Ser	Gln	Glu	Leu	125	130	135
Pro	Gln	Glu	Asp	Ser	Leu	Leu	His	Gly	Gln	Phe	Ser	Gln	Ala	Val	140	145	150
Thr	Pro	Leu	Ala	His	His	His	Thr	Asp	Tyr	Ser	Lys	Pro	Thr	Asp	155	160	165
Ile	Ser	Trp	Arg	Asp	Thr	Leu	Ser	Gln	Lys	Phe	Gly	Ser	Ser	Asp	170	175	180
His	Leu	Glu	Lys	Leu	Phe	Lys	Met	Asp	Glu	Ala	Ser	Ala	Gln	Leu	185	190	195
Leu	Ala	Tyr	Lys	Glu	Lys	Gly	His	Ser	Gln	Ser	Ser	Gln	Phe	Ser	200	205	210
Ser	Asp	Gln	Glu	Ile	Ala	His	Leu	Leu	Pro	Glu	Asn	Val	Ser	Ala	215	220	225
Leu	Pro	Ala	Thr	Val	Ala	Val	Ala	Ser	Pro	His	Thr	Thr	Ser	Ala	230	235	240
Thr	Pro	Lys	Pro	Ala	Thr	Leu	Leu	Pro	Thr	Asn	Ala	Ser	Val	Thr	245	250	255
Pro	Ser	Gly	Thr	Ser	Gln	Pro	Gln	Leu	Ala	Thr	Thr	Ala	Pro	Pro	260	265	270
Val	Thr	Thr	Val	Thr	Ser	Gln	Pro	Pro	Thr	Thr	Leu	Ile	Ser	Thr	275	280	285
Val	Phe	Thr	Arg	Ala	Ala	Ala	Thr	Leu	Gln	Ala	Met	Ala	Thr	Thr	290	295	300
Ala	Val	Leu	Thr	Thr	Thr	Phe	Gln	Ala	Pro	Thr	Asp	Ser	Lys	Gly			

<210> 87
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 87
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<210> 88
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 88
agtgttaagtc aagctccc 18

<210> 89
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 89
gcttctcgac actaaggctg tctgctagtc agaattgcct caaaaagag 49

<210> 90
<211> 957
<212> DNA
<213> Homo Sapien

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gtcttcgcct ccttgtgtgc ctggtattcg gggtaacctgc tcgcagagct 100
cattccagat gcacccctgt ccagtgtgc ctatagcatc cgcagcatcg 150
gggagaggcc tgtcctcaaa gctccagtcc ccaaaaggca aaaatgtgac 200
cactggactc cctgcccatac tgacacctat gcttacaggt tactcagcgg 250
agggtggcaga agcaagtacg ccaaaatctg ctttgaggat aacctactta 300
tgggagaaca gctgggaaat gttgccagag gaataaacat tgccattgtc 350
aactatgtaa ctgggaatgt gacagcaaca cgatgttttg atatgtatga 400
aggcgataac tctggaccga tgacaaagtt tattcagagt gctgctccaa 450
aatccctgct cttcatggtg acctatgacg acggaagcac aagactgaat 500

[illegible]

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Phe	Ala	Ser	Leu	Cys	Ala	Trp	Tyr	Ser	Gly	Tyr	Leu	Leu	Ala	Glu	
				20					25					30	
Leu	Ile	Pro	Asp	Ala	Pro	Leu	Ser	Ser	Ala	Ala	Tyr	Ser	Ile	Arg	
				35					40					45	
Ser	Ile	Gly	Glu	Arg	Pro	Val	Leu	Lys	Ala	Pro	Val	Pro	Lys	Arg	
				50					55					60	
Gln	Lys	Cys	Asp	His	Trp	Thr	Pro	Cys	Pro	Ser	Asp	Thr	Tyr	Ala	
				65					70					75	
Tyr	Arg	Leu	Leu	Ser	Gly	Gly	Gly	Arg	Ser	Lys	Tyr	Ala	Lys	Ile	
				80					85					90	
Cys	Phe	Glu	Asp	Asn	Leu	Leu	Met	Gly	Glu	Gln	Leu	Gly	Asn	Val	
				95					100					105	
Ala	Arg	Gly	Ile	Asn	Ile	Ala	Ile	Val	Asn	Tyr	Val	Thr	Gly	Asn	
				110					115					120	
Val	Thr	Ala	Thr	Arg	Cys	Phe	Asp	Met	Tyr	Glu	Gly	Asp	Asn	Ser	
				125					130					135	
Gly	Pro	Met	Thr	Lys	Phe	Ile	Gln	Ser	Ala	Ala	Pro	Lys	Ser	Leu	
				140					145					150	
Leu	Phe	Met	Val	Thr	Tyr	Asp	Asp	Gly	Ser	Thr	Arg	Leu	Asn	Asn	
				155					160					165	

Asp Ala Lys Asn Ala Ile Glu Ala Leu Gly Ser Lys Glu Ile Arg
170 175 180

Asn Met Lys Phe Arg Ser Ser Trp Val Phe Ile Ala Ala Lys Gly
185 190 195

Leu Glu Leu Pro Ser Glu Ile Gln Arg Glu Lys Ile Asn His Ser
200 205 210

Asp Ala Lys Asn Asn Arg Tyr Ser Gly Trp Pro Ala Glu Ile Gln
215 220 225

Ile Glu Gly Cys Ile Pro Lys Glu Arg Ser
230 235

<210> 92

<211> 20

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<213> Artificial Sequence

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<210> 93

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<400> 93

aggcttggaa ctcccttc 18

<210> 94

<211> 24

<212> DNA

<213> Artificial Sequence

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<400> 94

aagattcttg agcgattcca gctg 24

<210> 95

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 95

aatccctgct cttcatggtg acctatgacg acggaagcac aagactg 47

<210> 96
 <211> 21
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 <220>
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 <400> 96
 ctcaagaagc acgcgtactg c 21

 <210> 97
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 <400> 97
 ccaacctcag cttccgcctc tacga 25

 <210> 98
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 <212> DNA
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 <400> 98
 catccaggct cgccactg 18

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 <400> 99
 tggcaaggaa tgggaacagt 20

 <210> 100
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 <212> DNA
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 <220>
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 <400> 100
 atgctgccag acctgatcgc agaca 25

 <210> 101
 <211> 19
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<213> Artificial Sequence

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<400> 101

gggcagaaat ccagccact 19

<210> 102

<211> 18

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<210> 105

<211> 21

<212> DNA

<213> Artificial Sequence

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<210> 106

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 106

tggcccagct gacgagccct 20

<210> 107

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<210> 108

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 108

tggctcccag cttggaaga 19

<210> 109

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 109

cagctcttgg ctgtctccag tatgtaccca 30

<210> 110

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

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gatgcctctg ttctgcaca t 21

<210> 111

<211> 48

<212> DNA

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<210> 112

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 112

ctatgaaatt aaccctcact aaagggaccg cagctgggtg accgtgta 48

<210> 113

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 113

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<210> 114

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 114

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<210> 115

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

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<210> 116

<211> 48

<212> DNA

<213> Artificial Sequence

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<223> Synthetic Oligonucleotide probe

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<210> 117

<211> 48
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 <400> 117
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 <210> 119
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 <400> 119
 ggattctaatacgcactcactatagggcaaggagccgggacccaggaga 48

 <210> 120
 <211> 47
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 120
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